

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :
Shu KOBAYASHI et al. : **Mail Stop: PCT**
Serial No. NEW : Attorney Docket No. 2004-1442A
Filed September 10, 2004 :

PROCESS FOR ASYMMETRIC
INTRAMOLECULAR [3+2]
CYCLOADDITION OF HYDRAZONES
[Corresponding to PCT/JP03/02862
Filed March 11, 2003]

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☐ each U.S. Patent and U.S. Patent application publication (*for U.S. National applications filed after June 30, 2003 and International applications that have entered U.S. National Stage after June 30, 2003*),
- ☒ each reference previously cited and provided by WIPO in the international application PCT/JP03/02862; and/or
- ☐ each reference previously cited in prior parent application Serial No. _____.

1a. ☒ This Information Disclosure Statement is submitted:

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEE FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975.

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

and thus no certification and/or fee is required.

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

the certification of paragraph 2 below is provided, and

the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification


after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
 - b. ☐ a foreign patent (International) office search report (in the English language) (Attachment F) submitted herewith,
 - c. ☐ the concise explanation contained in the specification of the present application at page,
 - d. ☐ the concise explanation set forth in the attached English language abstract,
 - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☒ a foreign patent (International) office search report (in the English language) (Attachment F) citing one or more of the references is enclosed.

Respectfully submitted,

Shu KOBAYASHI et al.

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ACCOUNT NO. 23-0975.

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September 10, 2004

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FORM PTO 1449 (modified)

ATTY DOCKET NO.
2004-1442ASERIAL NO.
NEW

10/507309

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: September 10, 2004

APPLICANT
Shu KOBAYASHI et al.FILING DATE
September 10, 2004

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ						
	AK						
	AL						

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AM	Kobayashi, Shu et al., "Asymmetric Intramolecular [3+2] Cycloaddition Reactions of Acylhydrazones/Olefins Using a Chiral Zirconium Catalyst," <i>Journal of American Chemical Society</i> (2002), 124(46), pp. 13678 to 13679.
	AN	Fouchet, B. et al., "(3+2) Intramolecular Cationic Cycloadditions and 1,3-Dipolar Cycloadditions of Phenylhydrazones", <i>Tetrahedron Letters</i> (1981), 22(14), p. 1333-6.
	AO	Kobayashi, Shu et al., "Chiral Catalyst Optimization Using Both Solid-phase and Liquid-phase Methods in Asymmetric Aza Diels-Alder Reactions," <i>Organic Letters</i> (2000), 2(9), pp. 1225 to 1227.
	AP	Sakane, Soichi et al., "Asymmetric Cyclization of Unsaturated Aldehydes Catalyzed by a Chiral," <i>Tetrahedron</i> (1986), 42(8), p. 2203-9.

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.